P2 Question & Answer

Q. *How did the concept of combining pollution prevention and operational flexibility into Title V permit development originate?*

A. The idea originated in April of 1993 at a conference on pollution prevention and the Clean Air Act. Here, representatives from EPA Region 10 and EPA OAQPS held an ad hoc meeting to discuss the viability of a regulatory reinvention initiative that could enhance operational flexibility in Title V permits, using pollution prevention as a pathway to obtaining this flexibility.

Q. *Is pollution prevention a required component of every P4 permit?*

A. No. However, while pollution prevention gains are not mandatory, a commitment to P2 *is* an essential component. At a minimum, therefore, each P4 permit contains a "P2 Program." Each P2 Program is designed to provide a framework that allows the source to increase its focus on, interest in, and utilization of pollution prevention, and increase the likelihood that P2 will occur. As well, these programs create an added assurance to the permitting authorities that sources will be able to comply with flexible permit conditions. While none of the P2 Programs are enforceable, several of the permits (Lasco Bathware, Intel, Searle Pharmaceutical, and Imation Enterprises) contain an explicit link between implementation of an approved P2 Program and many of the Title V operating permits' operational flexibility provisions. In these cases, sources will not be penalized for failing to implement an approved P2 Program; however, they will not be able to utilize designated flexibility provisions if an approved P2 Program is not in place.

Q. *How does P2 enhance operational flexibility?*

A. One of the biggest flexibility "needs" of P4 sources is to reduce or eliminate the time required to process New Source Review (NSR) and undertake associated Title V permit revisions. P2 can help meet this need, and enhance operational flexibility, when a source must create emissions offsets to remain within an emissions cap. Often, the most streamlined way to create offsets is through P2. Because the use of new or altered control technology will almost always require regulatory review and permit revisions, it can be more costly to use control to achieve offsets. Alternatively, if properly built into the permit, P2 can support the creation and utilization of offsets without regulatory review or permit revisions. For example, the Intel permit creates a dynamic system in which the company is "preapproved" to make a series of operational changes provided it remains under an environmentally protective Plant Site Emissions Limit (PSEL). The permit uses P2 reductions as the means for Intel to remain below this cap, while operating in preapproval mode. This creates a strong P2 incentive if Intel chooses to expand production, and eliminates the time consuming regulatory approvals that otherwise would be necessary if new or altered control technology were used. The Lasco, Cytec, and Rio Grande Portland Cement permits provide a similar system with one important difference: in addition to P2, these permits also allow for the use of curtailment and/or control technology to achieve necessary offsets in preapproval mode (Lasco and Rio Grande Portland Cement only allow P2 and curtailment; Cytec allows for P2, curtailment, or control technology). Therefore, when these sources wish to expand production and increase emissions, the choice offers maximum decision-making flexibility in creating emissions offsets.

If available, however, P2 is often the most attractive option: preapproving control technology is a complex permit writing exercise that cannot always be employed, and curtailment can be less attractive to sources if it reduces production. Overall, the use of P2 for emissions offsets can enhance operational flexibility, increase the value of P2 activities, and encourage more P2 endeavors.

Q. *Will measurable environmental improvements occur as a result of the P2 provisions?*

A. Possibly. Because all of the P4 permits contain implicit and/or explicit P2 incentives, the likelihood of pollution prevention occurring is increased. The presence of emissions caps (PTE limits, PALs, etc.) in permits can create particularly strong P2 incentives for sources that are operating with actual emissions that approach their caps. In these instances, if the source plans to expand operations, emissions caps ensure that growth can only occur if corresponding emissions per unit produced go down. While sources are allowed to increase their caps to accommodate growth, such increases are subject to time consuming permit revisions. Therefore, P4 permits offer a lower cost incentive to operate under a fixed emissions cap, which in turn, provides implicit incentives for P2 offsets. In addition, the integration of pollution prevention, through P2 incentives and a P2 Program, can encourage sources to strive continuously for operational improvements that will reduce the amount of pollution associated with their products and operations. In this way, P4 permits help sources adopt a pollution prevention mind-set in all operations, and can act as a catalyst for continuous improvement in the environmental profile of these sources. Ultimately, this can also encourage more long-run sustainable production behavior. Already, Intel's Aloha facility has engaged in enough P2 to reduce its emissions cap voluntarily. Similarly, Lasco Bathware's Yelm facility has exceeded the P2 performance goals outlined in its P2 Program requirements.

Q. *Why does each P4 permit appear to vary in the amount and scope of P2?*

A. While all P4 permits have a P2 Program, the amount of actual pollution prevention depends largely upon source incentives, source P2 capabilities, and the state/local regulatory structures. For example, sources that are able to use pollution prevention as a component of their BACT and/or RACT determinations may demonstrate more P2 than sources whose regulatory structures do not allow for P2 integration into control standards. Likewise, sources that have strong economic and regulatory incentives to reduce pollution may be more likely to cultivate pollution prevention gains than sources with fewer economic incentives for P2. Lasco Bathware's primary air pollutant is styrene; therefore, Lasco is constantly seeking ways to reduce the amount of costly styrene inputs, which in turn, also reduces styrene emissions per unit produced.

Q. *Has it been necessary to change rules in order to accommodate P2 within these permits?*

A. No. However, in several P4 efforts, teams were able to devise alternative means to meeting regulatory requirements that streamline the relationship between the permitting authority and the source, and help ensure that P2 will take place. For example, Lasco could only receive P2 credit for activities that reduced the amount of styrene emissions per unit input by revising its emissions factor. Because emissions factor revisions constitute a change in the compliance demonstration method, a significant permit modification to the Title V permit would be necessary for each change. The potential need to revise its permit for every emissions factor change would decrease

the incentive for undertaking P2 innovations. To help encourage P2, the permit is written so that emission factor changes will only require an administrative modification to the permit, as long as specified procedures are followed. Therefore, by streamlining this process, the Lasco permit decreases the costs associated with obtaining credit for P2 offsets, and, therefore, increases the value of P2 gains. On another note, while all permit provisions that promote P2 comply with existing local, state, and federal regulations, the P4 permit development efforts also identified regulatory arenas, such as MACT standard development, where P2 integration into rulemaking would help encourage P2 gains.

Q. *Do sources receive "special" regulatory treatment as a result of the P2 provisions in the permit?*

A. No. While several P4 permits contain an explicit link between implementation of an approved P2 Program and operational flexibility, the actual flexibility provisions found in these permits ensure full regulatory compliance with all applicable requirements and remain within the confines of existing environmental regulations. Because creation of "flexible" permits requires a time commitment beyond that necessary to write a baseline Title V permit, P2 provisions offer the permitting authority increased assurances that the source will remain under its emissions cap, thereby remaining in preapproval mode. This assurance will, in turn, limit the number of regulatory reviews and permit revisions the permitting authority will need to conduct during the permit, and help justify the additional up front resources the permitting authority committed in developing the P4 permit.

Q. *Are P2 provisions easily transferable to other permits?*

A. Certain P2 concepts are quite replicable, whereas some permit language will need source-specific tailoring. For example, the general components of a P2 Program--P2 training, P2 research, and P2 tracking and reporting--can potentially be accommodated to any source that has P2 potential. Other provisions, such as use of P2 to help meet control technology requirements, and the creation of P2 offset mechanisms can also be transferable, but the degree of tailoring required will depend on the source situation and regulatory requirements.

FOR MORE INFORMATION ABOUT P4...

If you have additional questions about the P4 initiative, contact one or both of the following P4 Project Coordinators: **Dave Dellarco**, EPA Region 10, at 206/553-4978; or **Michael Trutna**, EPA OAQPS, at 919/542-5345.
